

ABSTRACT OF THE DISCLOSURE

A wireless sensor incorporated bearing assembly includes a bearing (1) including a stationary race member (3) and a rotatable race member (2), a 5 sensor unit (9) and a sensor unit mounting device (30) for removably mounting the sensor unit (9) on the stationary race member (3) of the bearing (1). The sensor unit (9) is of one-piece construction including a sensor section (26) for detecting a target of detection, a signal transmitting circuit (29b) and a transmitting antenna (29a). The sensor unit (9) includes, as an electric power 10 supply section (27), a section that does not require wiring, for example, an electric power receiving section (28) for receiving an electric power by wireless, or a battery or electric power generator.